

emily_huai@hanbell.cn
ir@hanbell.cn

021-51365368

1. 2014
2. 4.0
3. 7
- 4.
5. 2015
6. R22
7. 0
8. 2015 1 1
- 9.
- 10.
- 11.
- 12.
- 13.
14. 2014
15. 2017

16.

17.

18.

19.

20.

21. 25%

22.

23.

24. 530

25. 2014

26.

27.

28.

29.

30. 2014

31.

32. 2015

1. 2014

2. HFCs

3.

4.

5.

6. 25%

7.

8.

9. ORC

10. 2015

1. --4GFC(Y)

2. •

3.

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9.

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11. 20

12.

13. FRIGOBLOCK

14.

15.

16.

17.

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19.

20. EKOL

21.

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26.

1.

2. 2014 :

3.

1 2014

2014

APEC

.....

2014

18

1

6 13

5

2

2014 4 18

4

2014 1 13

2014

2014

5 APEC

2014 9 2 2014 (APEC) 11

6

2014 8 21 22

43

30

7

(2014-2020)

2014 6 7

(2014-2020)

2020

8

2014 3 24

)

3 24

9

2014 6 23

10

2014 9 22

5

(2014-2018)

2014

20

11

2014 9

300

2020

310

60 ()

300 2020

62% 60%

6 4 --

(7 8) (

1) () (

1)

12

2014 3 21

80%

95%

1 1.2 1.5

15

2014 7

20

100

20

100

()

16

2014 6

2014

()

() 2014

2014

8.3 2015

()

()

2015 10

(

) 2016

V

2017

()

2017 10
 () 2014
 2017 11.2
 17
 2014 9 14
 (5.68 0.05 0.89%) 25
 25 1070.94 29.99%

2

18
 2014
 6 23
 11 14
 190 180 90
 0 () 0.14 0.15
 11 14 24

http://news.ehvacr.com/news/2014/1208/94051_2.html Top

2 4.0

(Big

Data)

McKinsey

12

4.0
(Cisco) 2015
250 (Intel) 2015
150 2020 2,000 67.8%
(McKinsey Global Institute) 2025
6.2
4.0 (Industry 4.0)
4.0 2013 4

4.0

(Industrial

Internet) (GE)

GE

15 1% 300

15 1% 630

GE 2015

10

GE

Azure

(Industrial Internet Consortium

IIC)

(Internet of Things)

AT T Cisco GE IBM

PTC

ThingWorx

.html' target='_blank'>

WebAccess

SRP(solution ready package)

(IDF)

NIFE 100

Intel

Atom E3826

Moon Island

I/O

NIFE 100

27 (Moxa)

(IA) (IT)

I/O (Device Connect)

(Network Connect)

Moxa

5

Device Connect

Network Connect

IT

1980

PC

1995

2010

MIC

2015

179.88

MIC

<http://www.iot-online.com/xingyeyingyong/si/2014/1225/25794.html> Top

3

7

2013 77 77)
?

(EMC)

77 2013 1 1

6

;

(2010 110) 77

7

1. 100

()

2.

(GB/T24915-2010)

3.

(GB/T24915-2010)

4.

()

(2009 166)

5.

70%

6.

7.

()

(2009 166)

77

2010 110

;

()

50%

77

4

1. ;

2. ;

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4.

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5.

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6.

<http://news.ehvacr.com/news/2014/1208/94054.html> Top

4

2015 1 1

?

2014

E20

/ /

?

2013 9

PPP

PPP

PPP

PPP

?

2013

89.21%

80%

20%

2000

?

?

B2G B2C

(B2G)

(B2C)

B2C

5 2015

12 10

2015 (HCFCs)

10% R32 GWP()

2015

2013 R22 HCFCs

2015 10% 2020 35% 2025 67.5% 2030

2.5%

2015

HCFCs 2015

R32 R290

2015

8450 HCFCs 2015 HCFCs

983 ;

2015 NH3/CO2 ;

R32 ; R32

2014 11

12 HCFCs (25)

3600

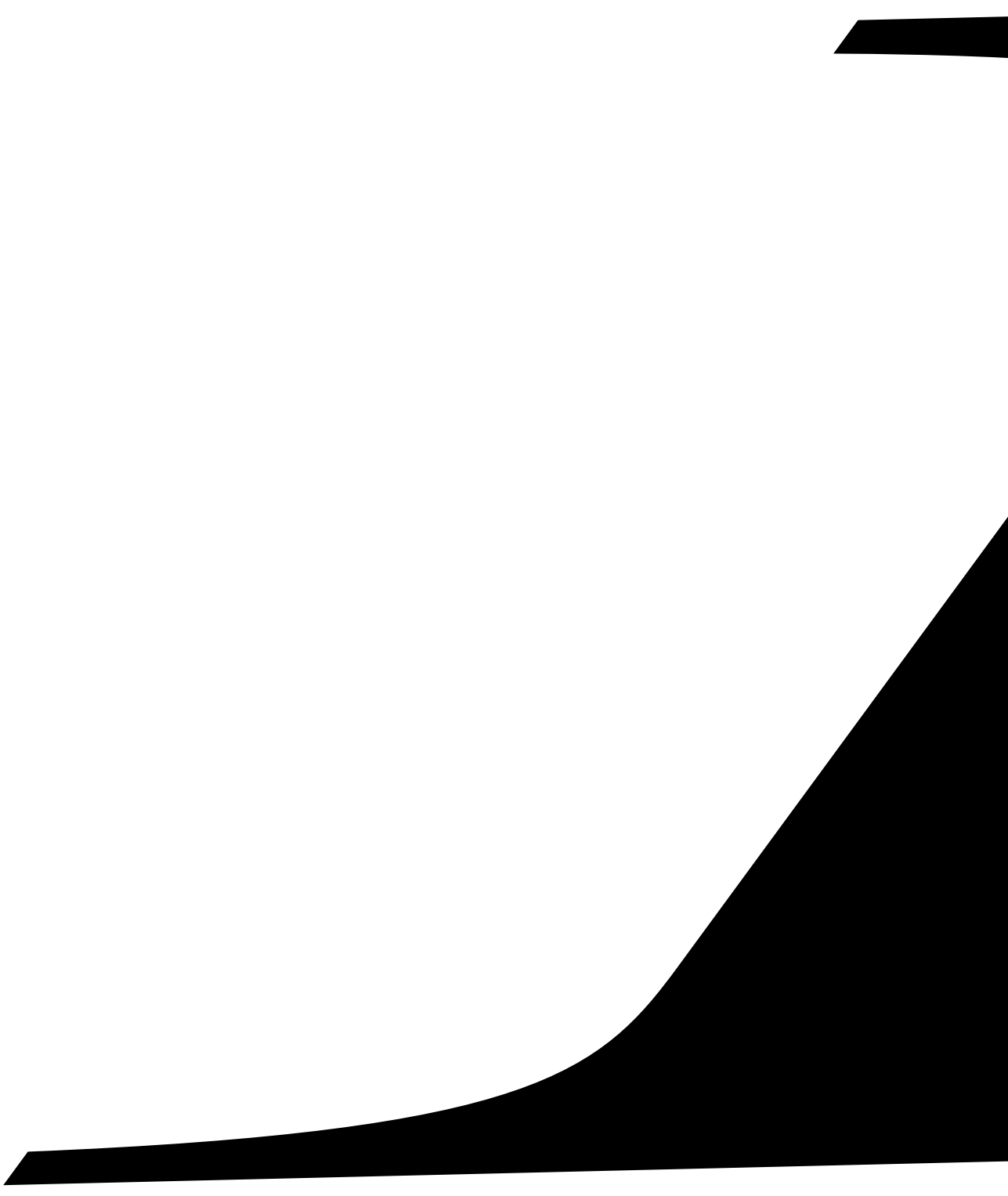
7000 R22

HCFCs

(HFCs)

GWP

BP	2009	R22		
			/CO2	2010
2011			R507	2014
	R507	GWP	3985	



()

2015 1 1

" "

<http://news.ehvacr.com/news/2014/1208/94056.html> Top

9

2014

2014

8

2015

2015

2014

?2015

2015

IT

2014 9 19

DIY

1 4 8

2015

2014

7.08

8.5 ;

300%

2014

?

<http://news.ehvacr.com/news/2014/1201/93965.html>

Top

10

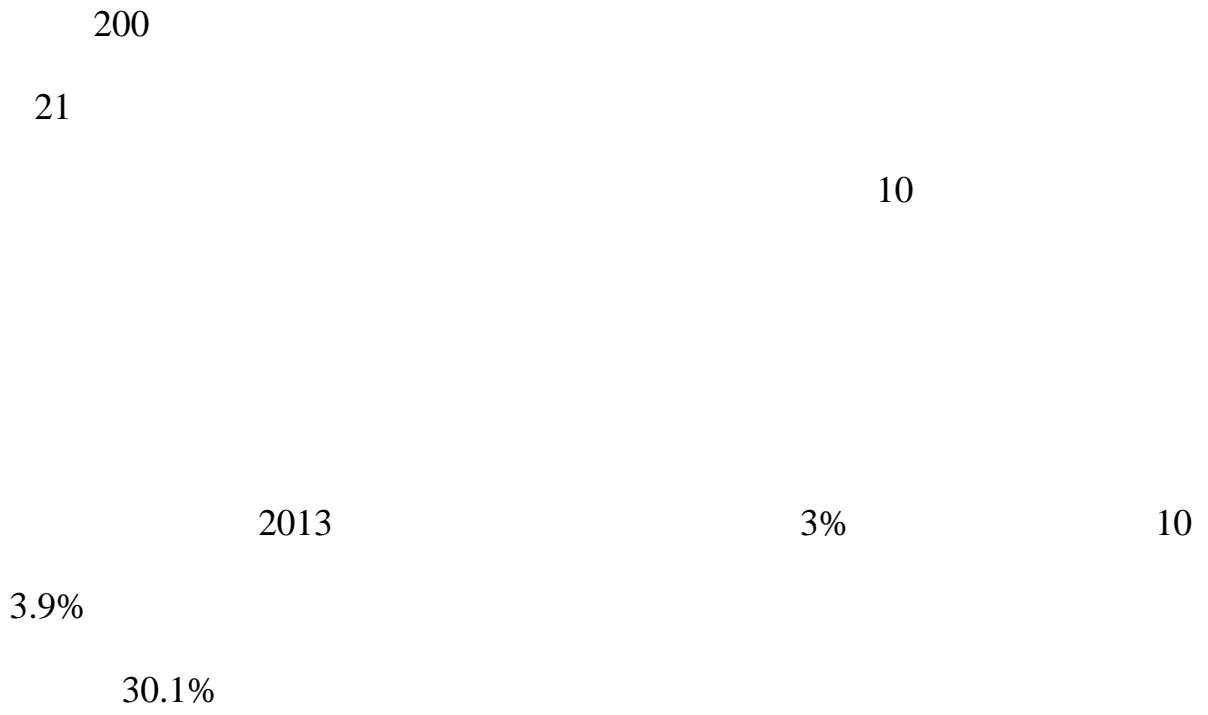
2014 1 8

291

85%

!

<http://news.ehvacr.com/news/2014/1202/93984.html>



21

1965

20

67% 100

2013 95.24 2012 4.2%
27.1%

2002

<http://news.ehvacr.com/news/2014/1204/94015.html> Top

12

31.8 2 350

100%

1751

305

39

<http://news.ehvacr.com/news/2014/1206/94039.html>

Top

13

470 6

15

37 4

274 6

110 3

85 6

3 5

90

15

37 4

3 5

130 11

30

EK

2004

5

<http://news.ehvacr.com/news/2015/0126/94536.html>

Top

15

2017

2017 1 1

(MEPS)

MEPS

(EER)

(CSPF)

MEPS

<http://news.ehvacr.com/news/2014/1224/94246.html>

Top

16

2006

2010 12

2011 6

12 15

AHRI

AHRI

64

AHRI

2013

2006

2006

50%

Honeywell 3M

24

<http://news.ehvacr.com/news/2014/1229/94281.html>

Top

()

70 ~90

70%

30%

40 ~60

52

72

/

50 ~70

60

14

26

/

5

73000

10

10t/h

87600

20

30

35

1%

<http://news.ehvacr.com/news/2015/0105/94308.html>

Top

18

15

3C

1

10

31

CEO

100

1000

CEO

B2C

<http://news.ehvacr.com/news/2014/1223/94222.html> Top

20

2014

		2014		3320	
8300		2411	36.9%		8.5
	7	21.4%	1-10		583
		2014			100
	2014		110		
10%					

<http://news.ehvacr.com/news/2015/0108/94353.html> Top

21

25%

25%

2017

4700

<http://news.ehvacr.com/news/2015/0120/94468.html> Top

22

11 25

2000

-

(Delhi-Chennai route)

1754

21

()

AlexanderMisharin

2.8

(600)

5

40

200

380

!

5

<http://www.etyjx.com/2014/11/26715539957.shtml> Top

23

12 5

(1)

(2)

(3)

<http://www.etyjx.com/2014/12/16716398837.shtml> Top

24 530

1 18

531.4

2014

2014

2014

;

<http://www.etyjx.com/2015/01/19716734507.shtml> Top

26

36

	2013	19		2366
	2020		50	2020
	6000			4
	5			
		9000		
	2020		9000	
3	9500		1	
	1			6
		9		4
6				

4000

(20132030)

2013 2312

630 2017 3000

2030

4000 19 28

250 ;

2 139 ; 4

1 473 4 ; 8

183 3 ; 3

3

60

30

1

2014 1110

()

16

20

				7					
	37								
			1110						
	12000								
								8	
				645					
									12
	322.5			6	181.1	;		5	
1		141.4					1	2	
	52.3		355		1	2012	6		
2016	12	2	2013	1		2017	4		
		6		+					183
	117								135
	48		2020	1	2	55	()
	100			1	27.3			L	
		25.6		1.7					

	2							27.7	
	5						137	89	
;	4					147		2020	
1	2			60					
		6				S1	S2	S3	
	195			103	;		1	2	37.3
	212.6								
	2								

(2014—2030)

7 21
(2014—2030) () (2030

2030
3A
85% ;
97 28
;
17 6
143 4551
300
143 4551
1636
;
166
2014 18
2014 18
3 13 2
2015 1030

3 164 ;
 2 91 4527

2015

5000

; ; ;

; BOT ;

300

3.8

6 24

2014

2016 ©>, u 1300

3300

22

2013

22.5

76%

;

100%

98%

2020 8000 (2010 2020)

2020 8000 6 7 8

()

7

7

2020

3435

3052 8000

()

7 632 (456);

5 636

2014 552

6 8

3

552

6

2014

230

2013

4129

7

2014

230

197

100%

<http://news.ca168.com/201409/32893.html>

Top

27

12 1

2014

3

<http://www.compressor.cn/News/hyqx/2014/1203/76294.html>

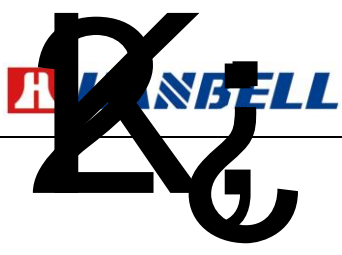
Top

<http://www.compressor.cn/News/hyqx/2014/1125/76164.html>

Top

29

11 27



" ' i M Ô P 6

<http://news.ehvacr.com/news/2014/1204/94018.html> Top

31

10 14

18.32%~249.96%

14.78%~15.97%

11

1 23

6

18.56%~35.21%

26.33%~165.04%

20.86%~27.59%

20.38%

2015 1

WTO

WTO

WTO

WTO

WTO

WTO

EnergyTrend 2015 US\$0.43/W

+PERC

PERC

M1/M2 4BB 4-busbar

2015

P

LID

N

2015

50%

3.5GW

2014

3GW

50%

2013

46%

2015

34 2015

2015

2015

1.

2014 —2016

30%

2014

2015

2.

2014-2016

10%

2015

6 30

2015

3.

2014

2014

1/4

2015

2015

4.

2014

2015

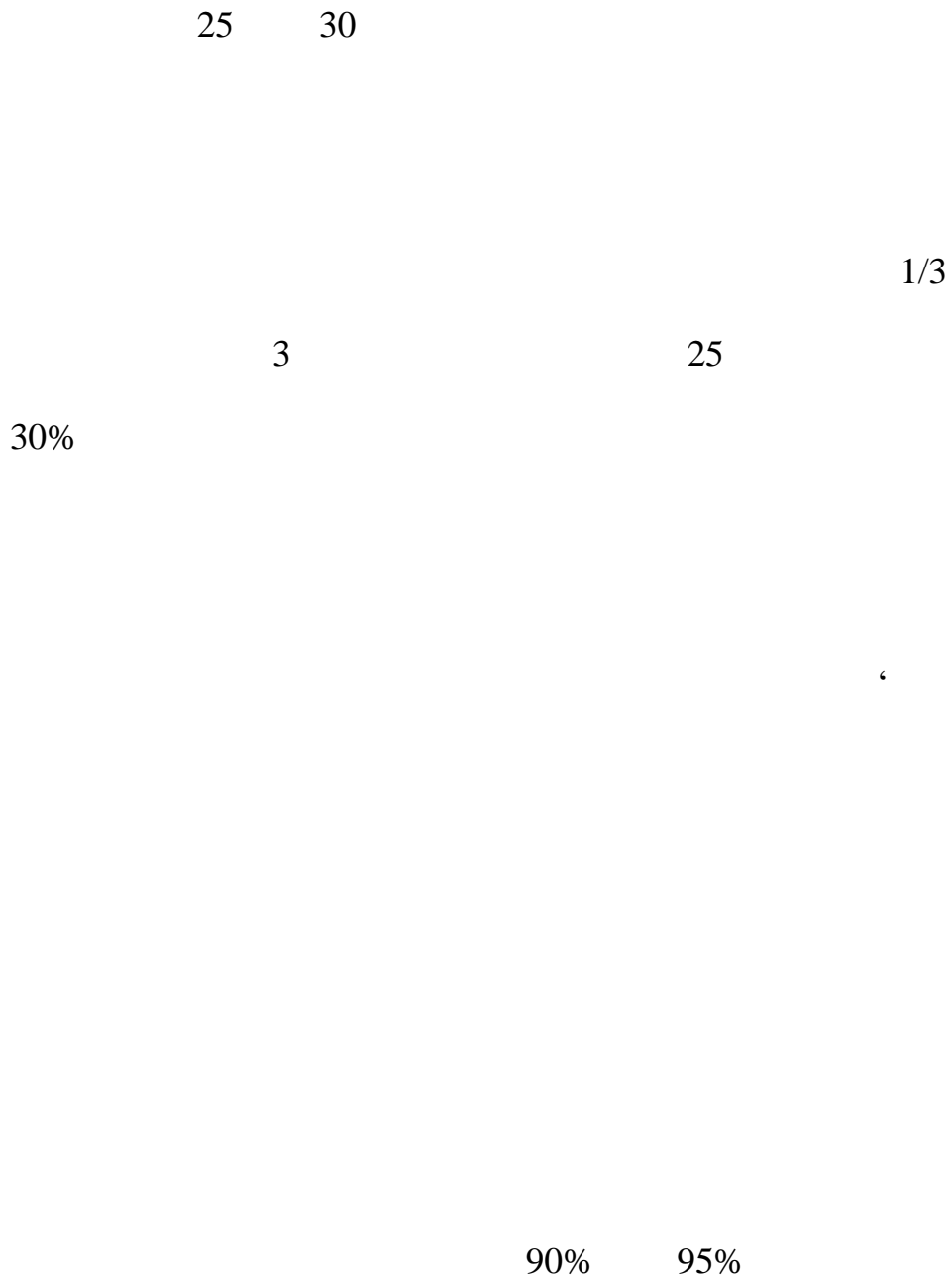
2012
2012—2020 2015
50 2011
10 2015 50 50
5.

2015 1 1

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47646&pid=39> Top

35

200
168
2014 5
168-x90 70.39°
1.5



<http://www.chinesevacuum.com/ShowArticle.aspx?id=46915&pid=39> Top

37

11 20 ()

2014 3.79G

13G

2014 3.79G (

) 2.45G 1.34G

180 2013 200%

5.5G

13G

10G 13G

14G

1 25 2014

180

120

220

60

90

48

3.79G

10G

10G

12G

9

10

<http://www.chinesevacuum.com/ListArticle.aspx?pid=39&id=43>

Top

1

2014

2014

2014

5

10 1

2014 32

5

2014 10 1

5

JB/T11882-2014

JB/T11883-2014 CNG

JB/T11884-2014

JB/T8935-2014

JB/T6430-2014

6

GB/T29736-2013

2014 6 1

11

CRAA430-433

CRAA430-433

CRAA430-433-

ISO18154

-LNG

-

2014

2

2015

20%

2014

10

5

3

2014

1

1

6

200

2015

30%

<http://news.ehvacr.com/news/2015/0128/94569.html> Top

2 HFCs

2014 12 10

GWP

HCFCs

HFCs HCFCs

GWP

HCFCs

2007 9

19

HCFCs

, HCFC-22 HCFC-123

HCFC-124 HCFC-141b HCFC-142b

HCFC22 HCFC142b HCFC123

HCFCs

ODS

1992

HCFCs

3 HCFCs

2016

2013 HCFCs

10

2040

2030

HCFCs 2030

HCFCs

2013

R22 HCFCs

(2009 2010)

2015

10%

HCFC

8450

2020	2025	35%	67.5%	2030
	2.5%	2030	2040	
HCFC			"	HCFCs
			"	
			2014	11
12		HCFCs		
	25		3600	
7000	R22		15	24
		8000	R22	
			HCFCs	
2007		19		HCFCs
HFCs				
	ODS			
				HCFCs
		HFCs		
HFCs				
R134a	R410A	R407C	R404A	
2009				HFCs
				HFCs

100

GWP HFCs

2013 6

HFCs

2014 11 APEC

2025 2005 26%~28%

2030 2030

20%

HFCs

GWP HFCs

2011

ODP GWP

GWP

<http://news.ehvacr.com/news/2014/1225/94255.html> Top

3

2012 41%

5

2012 165

2010-2012

;

;

2004

2011

2013

2013

2013

2

3

2009

2013

2012

4.5

<http://news.ehvacr.com/news/2015/0120/94466.html> Top

4

2014~2020

2005

2020

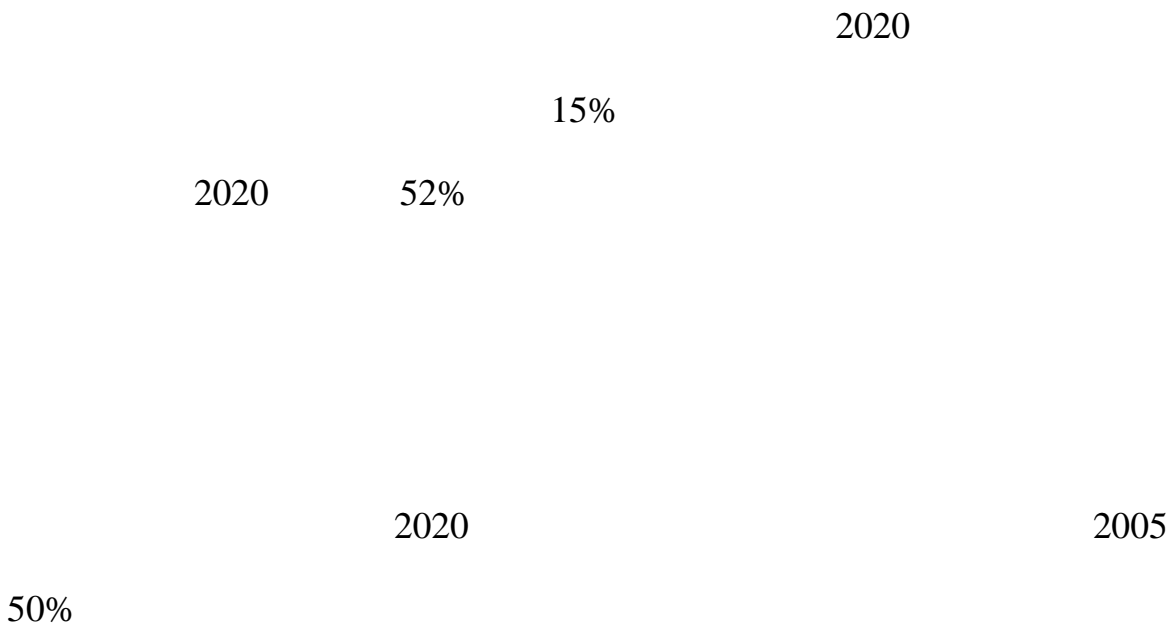
40%~45%

15%

2005

4000

13



<http://www.cinn.cn/xw/chanj/324780.shtml> Top

5

-15 -25

20

7

30%

-7

7 55%

30

100

<http://news.ehvacr.com/news/2015/0128/94567.html> Top

6

25%

25%

2017

4700

B2B

B2C

2012

4

80%-120%

2013

195%

1

<http://news.ehvacr.com/news/2015/0116/94433.html> Top

7

<http://news.ehvacr.com/news/2015/0116/94434.html> Top

8

330

330 /

2010

0.75

0.5 /

10
2013 850 2014 370
100
2012 2015
1300 780
2430
2015

<http://news.ehvacr.com/news/2015/0106/94329.html> Top

9 **ORC**
(Organic Rankine Cycle ORC)
()
1

1. ORC

2. ORC

3. ORC

ORC

ORC

ORC

ORC

1.

2.

30-40

1997

ORC

3.

ORC

ORC

ORC

ORC

1.

2. ORC

ORC :

ORC

GE CAT

ORC

ORC

1.

1.2 /

2.

3. ORC

ORC

1. ORC 75%-80% 15%

2. 70%-80% ORC 3 /

0.7-0.8 / ORC 2-3

ORC 150

260

ORC

1

ORC

9 4

2

25%-30%

40%-50% 1000 kw

3

ORC

ORC

ORC

ORC

ORC

2014 11 Top

10 2015

IHS

2014

2014

2014

IHS

Ash Sharma

2015

--

IHS

2015

:2015

25%

2015

	IHS	2015		27%
2014	24%			
:	100kW			30%
IHS			2015	100kW
	15.7GW	2015	13.2GW	
				70%
			2015	2.2GW
:				
2015				
			EPC	
		1.4GW		
:				
2015			22	2015
	15GW		31%	
				7.6GW
:				
IHS	2015			10%

1.

--4GFC(Y)

ROADSTAR

ROADSTAR

SPHEROS

200 4GFC(Y)

SPHEROS

ROADSTAR

2011

100

Eberspächer S trak

2011

ROADSTAR

1,000 ROADSTAR

Eberspächer S trak

Wim Oud

ROADSTAR

Schkeuditz

ROADSTAR

4GFC(Y)

http://bao.hvacr.cn/201410_2051872.html

Top

2. •

2014 11 26

http://bao.hvacr.cn/201412_2053375.html Top

3.

2014 8

XXXX

<http://info.hvacr.hc360.com/2014/11/171109539899.shtml>

Top

4.

?

19

4

;

12.66

1.29%

U+

U+

U+

TCL

1400		000651.SZ	2014
	1400.05		16.63%
141.14			29.84%

2015

10

1 9

360 CEO

360

360

<http://money.163.com/15/0131/01/AH8H73OT00253B0H.html>

Top

6.

2 2

,

1% 2%

4

97

70%

<http://finance.eastday.com/c9/2015/0202/814218576.html>

Top

7.

10

+

+

160

<http://news.ehvacr.com/company/2014/1226/94263.html> Top

8.

50%

50

<http://news.ehvacr.com/company/2014/1224/94236.html> Top

9.

1 9

2014

2014 1

2012

, 2

<http://news.ehvacr.com/company/2015/0114/94414.html> Top

10.

ACDXHP

9

30

ACDXHP

--

<http://news.ehvacr.com/company/2015/0115/94425.html> Top

11. 20

20

20

MX

2014 Ç

MX7+

5%

IPLV

8.0

8.0

.0

<http://news.ehvacr.com/company/2015/0129/94577.html>

Top

12.

2014 4

973

75 300

ORC

5-7

10-23

PM2.5

<http://news.ehvacr.com/company/2014/1124/93867.html>

Top

13. FRIGOBLOCK

2014 12 9

1

FRIGOBLOCK

2015

FRIGOBLOCK

FRIGOBLOCK

150

4100

FRIGOBLOCK

FRIGOBLOCK

Ray Pittard

FRIGOBLOCK

FRIGOBLOCK

FRIGOBLOCK

FRIGOBLOCK

Peter Großkopf

FRIGOBLOCK

FRIGOBLOCK

<http://www.compressor.cn/News/qyzc/2015/0112/76889.html> Top

14.

2015 1 5

Ingersoll Rand

Cameron

2015 1 1

8.5

2013

4

850

12

TURBO-AIR®

MSG®

Michael W. Lamach

<http://www.compressor.cn/News/qyzc/2015/0108/76887.html> Top

15.

2015 1 11

11

200

2004

<http://www.compressor.cn/News/qyzc/2015/0106/76833.html> Top

17. a
2015 1 14 1 16

<http://www.compressor.cn/News/qyzc/2015/0127/77186.html> Top

19. .

(Kalina)

()

;

(Kalina)

Energent

Energent

API

4

;

•

8 PTS916(1600)

;0 ; ;

0.5-10.3bar

37.4-45.7m³/min

(BP)

BASF

BASF

BP

8

6

4

()

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•

•

Class Zero

(-25 °C

50 °C)

ISO9001-ISO14001-OHSAS18001

24

PTS916(1600)

ZT55-10-50

ZT90-10-50 ZT145-10-50

· (24/7)

· ()

· ()

· (Downtime)

· ()

· ()

· ()

)

<http://www.compressor.cn/News/qyzc/2015/0123/77139.html> Top

20. EKOL

1 22 ()
EKOL spol.s.r.o.(EKOL)

EKOL 100%

EKOL 75%

EKOL 25%

EKOL

EPC

EKOL 1991

EPC

70%

30

<http://www.compressor.cn/News/qyzc/2015/0125/77133.html>

Top

22.

2013

1600

2022

3

2.5KM

3500

BLT

20m³/min

40m³/min

10

10

!

<http://www.compressor.cn/News/qyzc/2015/0128/77272.html> Top

23.

SOGEVAC SV630B/750B

CE

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47956&pid=39> Top

24.

2015 1 15

(Pfeiffer_Vacuum)

125

2015

125

(Pfeiffer_Vacuum)

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47017&pid=39>

Top

26.

SVF-E0-50

MOCVD

SVF-E0-50

VPSA

10

24V

20L/min-50L/min

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47249&pid=39>

Top

1.

2014 10 31

2014

()

()

()

500

COP

;

2009

2010

http://info.hvacr.hc360.com/2014/11/040846538901.shtml

Top

2. 2014 : ,

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, , 7.68 ,

23.65%, 1.38 , 33.51%

0.56 2014 5%~35%,

, 1-9 , 19.35%,

,1-9 4.58%, 8.15%, 4.88%

9.08% , 34.44%, 35.61%

1-9 1.89 ,

7600 , 66.6%; 1.51 , 2000 ,

, 1-9

40%, ,

30%

,

,

, , ; ,

，

8.5 ，

() ， ； ，

10

！ 5%~35%，

2014~2016 0.76 0.94 1.1 (

), PE 25.6 20.9 17.8

，

： ， ；

<http://finance.qq.com/a/20141105/053257.htm> Top

3.

2014 10 9557

6.6% 1.26 7.8%

13228 / 1.1%

2014 12 18

2014

2014

2014